Air Force Materiel Command

Developing, Fielding, and Sustaining America's Aerospa

DEAMS Program
### Pre-Award and Risk
Process Overview
18 Feb 04

Dan Fulmer
HQ AFMC/DR-ACE
(937) 656-0825
Daniel.Fulmer@wpafb.af.mil

I n t e g r i t y - S e r v i c e - E x c e l l e n c e

Contract Award Process Model

Risk Assessment

Program Objectives (SOO)

Acquisition Strategy
- **Contract Type/Length**
- **Major Milestones/Events**
- **Competition Approach**
- **Budget/Reqmt Refinement**

Post Award Planning
Incentives, Tests, ACO role

RFP Development

SSP

ITO

Eval Factors

Model Contract

RFP

SRD

Proposal

Proposal

Proposal

Source Selection

Contract Award & Execution

External Inputs
- **Programmatic direction**
- **Industry inputs**
- **Funding**
- **User requirements**

Acquisition Strategy Focus

Risk Program				
RQMT	RISK	IMPACT	PROB	RATING
Technical Risks				

Programmatic Risks				

Business Risks				

High **P R O B** X X X X X X X X X X X X X X X X X X **Low**

Low **IMPACT** **High**
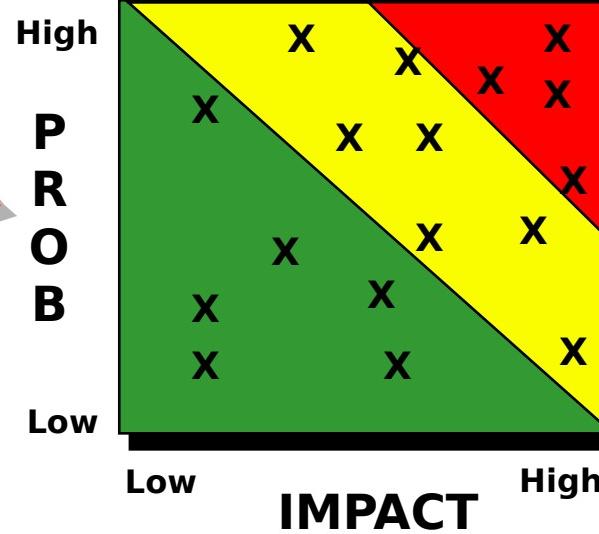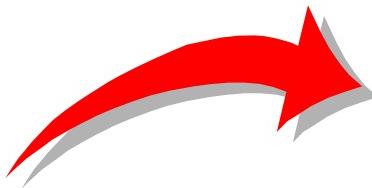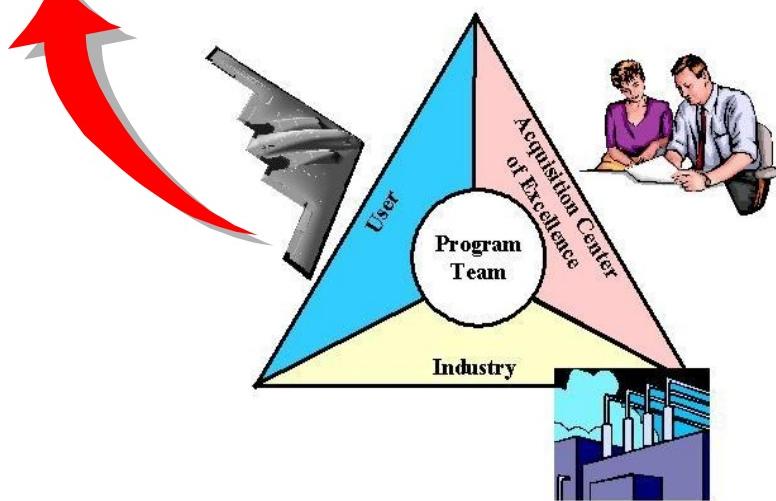
- **Acquisition Strategy**
- **RFP Content (SOO)**
- **Evaluation Criteria (Section M)**
- **Proposal Preparation (Section L)**
- **Incentives (Contract type)**
- **Post Award Management Concept**

Conveying Performance Requirements to the Contractor

Requirements ➡ *RFP* ➡ *Proposal*

Mission Need Statement (MNS)	**Statement of Objectives (SOO)**	**Statement of Work**
Initial Capabilities Document (ICD)	**System Requirements Document or Technical Requirements Documents**	**System Specification**
Program Management Directive (PMD)		**Integrated Master Plan**
	Instructions to Offerors, Sec L	**Integrated Master Schedule**
Acquisition Plan(AP) or Single Acquisition Management Plan (SAMP)	**Evaluation Factors, Sec M**	**Work Breakdown Structure**

4

Source Selection Plan

- Content (most at least indirectly influenced by risk assessment)
    - Acquisition Strategy
    - Source Selection Organization
    - Pre-solicitation activities
    - Evaluation Procedures
    - Evaluation Factors and Subfactors
    - Schedule of events
    - Use of non-government personnel

- Approved by Source Selection Authority prior to RFP release

RFP Development

- **Instructions to Offerors**
  - ◆ **Describe both format and content of proposals**
  - ◆ **Require only data essential for evaluation**
  - ◆ **Focus on contractually binding documentation when possible (specification, IMP, etc.)**
    - ▶ **Non binding "plans" of little value**
- **Systems Requirements Document**
  - ◆ **Ideally performance based document that effectively communicates required capabilities**
  - ◆ **No design solutions**
- **Model Contract**
  - ◆ **Other components of the solicitation, including requirements for pricing, deliveries, schedules, etc.**

Source Selection Factors

- **Mission Capability**
  - **Qualitative evaluation of proposed approach**
  - **Generally limited to six "subfactors"**
    - **Largely determined by results of risk assessment**
    - **Assessed as Exceptional, Acceptable, Marginal, or Unacceptable**
- **Proposal Risk**
  - **Assessed at the mission capability subfactor level**
  - **Includes potential for disruption of schedule, increased cost, degradation of performance and the need for government oversight; as well as likelihood of unsuccessful contract performance**
  - **Assessed as high, moderate, or low risk**

Source Selection Factors
(cont.)

Performance Confidence

- **Relates to an offeror's present and past work record to assess confidence in the contractor's ability to successfully perform as proposed**
- **Evaluates recent contracts**
  - **For relevance to Mission Capability subfactors**
  - **For qualitative assessment against contract specific performance criteria**
- **Confidence assessed as: high, significant, confidence, neutral/unknown, little, or no confidence**

Evaluation Matrix

Mission Capability					
Subfactor 1	Subfactor 2	Subfactor 3	Subfactor 4	Subfactor 5	Subfactor 6
Prop	Prop	Prop	Prop	Prop	Prop
Risk	Risk	Risk	Risk	Risk	Risk
Performance Confidence					
Price/Cost					

For a proposal to be eligible for award it must meet all technical requirements of the solicitation, conform to all required terms and conditions, and include all required certifications.

Source Selection Organization


```
                          ┌─────────┐
                          │   SSA   │
                          └────┬────┘
                               │
                          ┌─────────┐
                          │  SSAC   │
                          │If necessary│
                          └────┬────┘
                               │
                          ┌─────────┐
                          │  SSET   │
                          │  Chair  │
                          └────┬────┘
```

SSET

Advisors

PRAG | Technical Evaluators | Contracts Team | Cost/Price Analysts

May be Combined
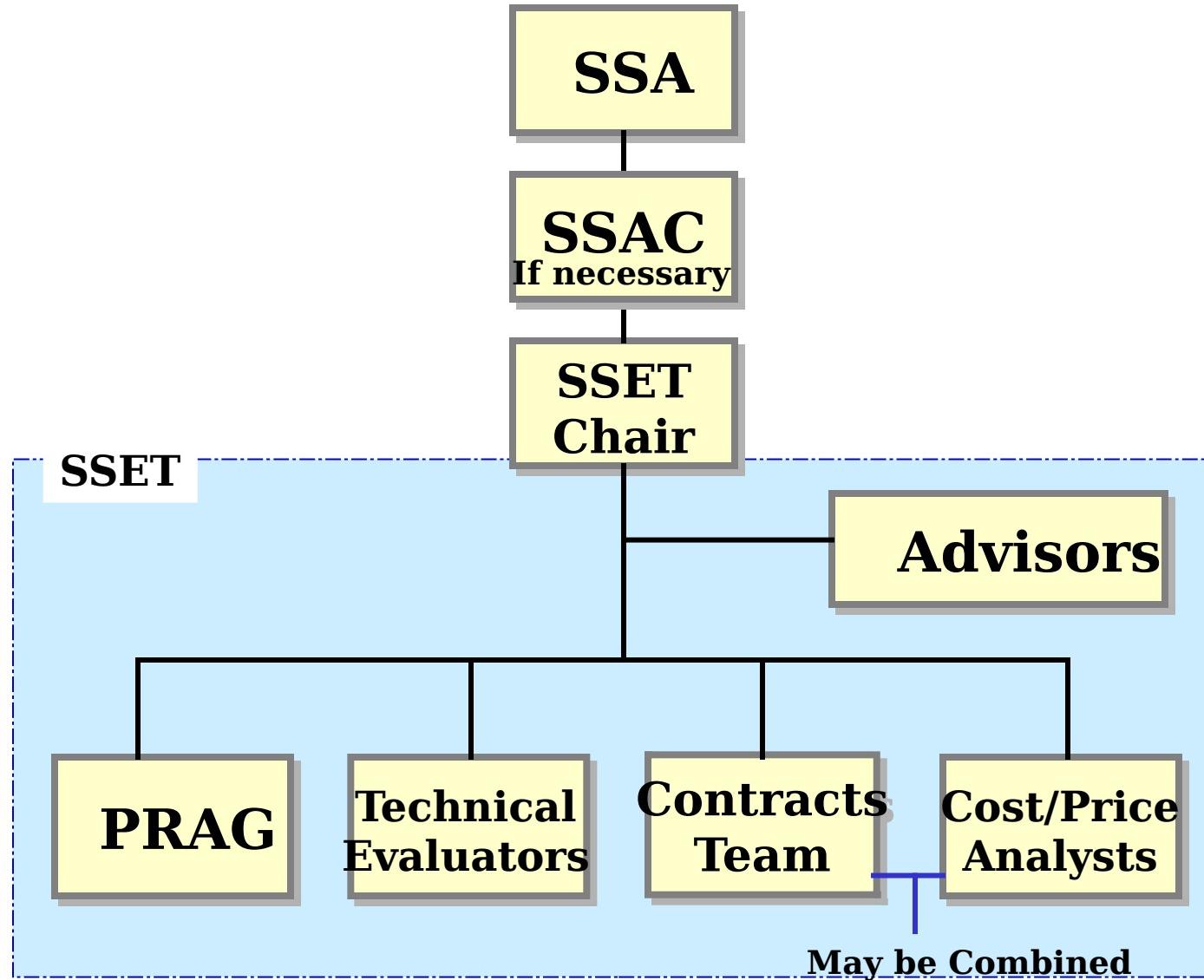
What is Risk?

- **Risk is a measure of the inability to achieve program objectives within cost and schedule constraints**

- **Two components of Risk:**
  - ***Probability*** **of failing to achieve particular performance, schedule or cost objectives**
  - ***Consequences*** **(impact) of failing to achieve those objectives**
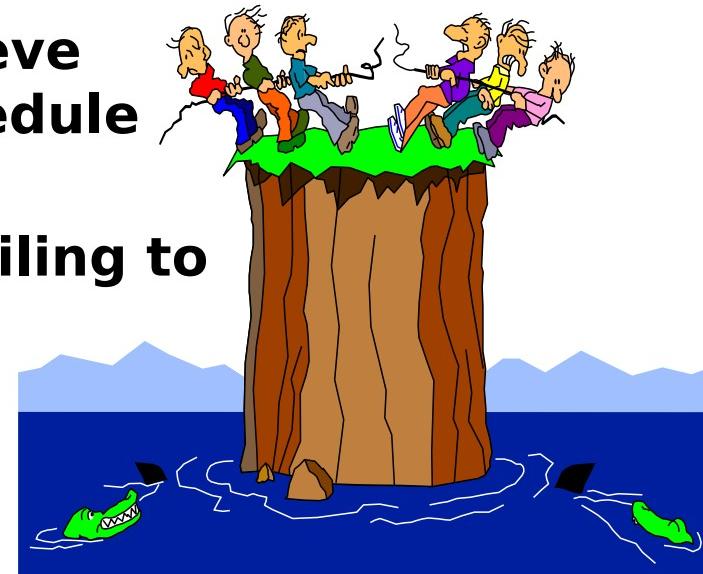
Typical Risk Areas

- ☒ **Requirements**
- ☒ **Design**
- ☒ **Test and Evaluation**
- ☒ **System Configuration**
- ☒ **Concurrency**
- ☒ **Capability of Developer**
- ☒ **Cost/Funding**
- ☒ **Management**
- ☒ **Systems Engineering**
- ☒ **Schedule**
- ☒ **Government Supplied Property**
  (GFP, GFE, GFI)

Typical Risk Areas

- **Requirements**
  - **Uncertainty in system requirements**
  - **Evolving technology**
  - **Clear understanding of interfaces**
  - **Stability of interfaces**
  - **Potential conflicts between "bolt-ons" and interfaces**
- **Design**
  - **Ability of (COTS) design to meet program requirements**
  - **Software Engineering Institute certification level requirement**
- **Test and Evaluation**
  - **Adequacy of test scenarios**
  - **Availability of test equipment and facilities**

Typical Risk Areas
(Continued)

- **System configuration**
  - **Ability to maintain system configuration with multiple interfaces**
- **Concurrency**
  - **Combining or overlapping phases or activities**
- **Capability of Developer**
  - **Ability of developer to design and produce the software**
- **Cost/Funding**
  - **Ability to deliver the system within the funding profile (types and increments)**
 - **Ability to produce system within the total cost constraints**

Typical Risk Areas
(Continued)

- **Management**
  - ◆ **Subcontractor involvement**
  - ◆ **Ability to use Earned Value Management**
- **Systems Engineering**
  - ◆ **Approach to handling interfaces and COTS adaptation**
  - ◆ **The extent to which software is portable**
  - ◆ **Extent to which software architecture can accommodate "bolt ons"**
  - ◆ **Accommodations of COTS software evolution**
- **Schedule**
  - ◆ **Adequacy of time allocated to perform required tasks**
  - ◆ **Ability to field system for spiral (incremental) customers**
- **Government Supplied Materials**
  - ◆ **Adequacy of interface control documents**

Risk vs. Performance

Risk Management

Risk Avoidance

Expected return greater than the likely cost

Gambling

Do not realize the full capability

Investment is likely to exceed the return

Risk (vertical axis)

Performance (horizontal axis)

Key Components

- **Common understanding of requirements**
  - **Cannot identify risks without proper baseline**

- **All stakeholders should be represented**
  - **User**
  - **Industry**
  - **Program office**

- **Active participation should be limited to those with a dog in the fight**
  - **No utility in discussing areas that don't matter**
    - **Those that apply to all approaches, strategies**
    - **Those that are of minimal program impact**
  - **Focus should be on mission (capability), not processes (scenarios)**

Significance of Event

Opportunity for industry to influence

- 🔴 **Requirements documents (SRD)**
  - 🔷 **Goal is to communicate requirements to industry (as customer of RFP)**
- 🔴 **Acquisition Strategy**
  - 🔷 **MDA will want to know the risks, and how to mitigate them**
    - ▶ **Industry ideally suited to help government determine the "probability" of an unwanted event**
  - 🔷 **Cost risks will influence contract type**
- 🔴 **Evaluation Factors**
  - 🔷 **High risks can be managed through source selection evaluation (ex. data for F-15C cockpits)**
- 🔴 **Incentives**
  - 🔷 **If it's important enough to evaluate, it's important enough to motivate**
  - 🔷 **How do you know you have the right incentive?**

Those who participate will influence RFP content . . .

18

Deliver Initial Capability within 12 months

Risks (Examples)

A. **Interface documents lack sufficient detail, delaying design**
Probability: Moderate
Impact: High

B. **Ill-defined requirements cause rework of initial coding effort** *Probability: Moderate*
Impact: Moderate

C. **Sheer number of SRD requirements precludes incorporation of all in time allotted**

Probability: High
Impact: High

Risk Matrix

Probability

H — 1A — 1C

M — 1B

L

L — M — H
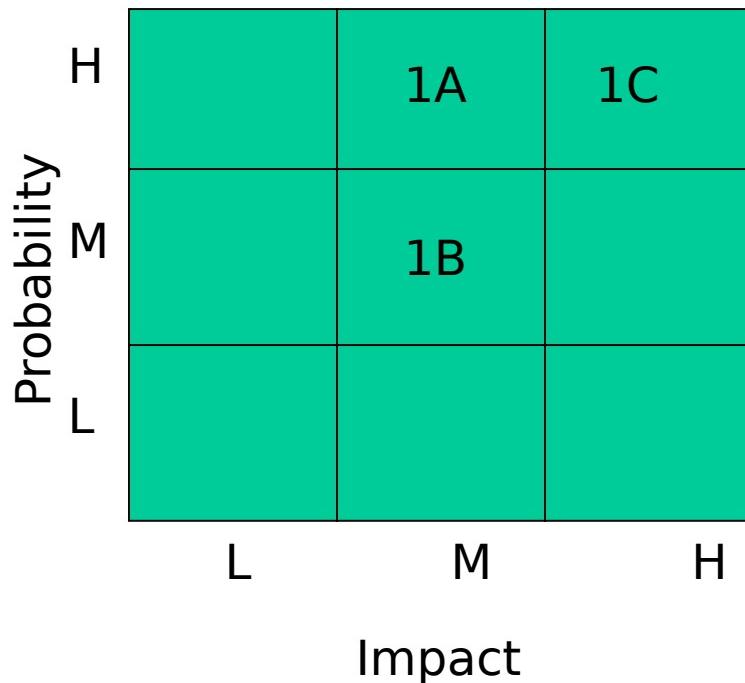
Impact

- 🔴 **Plot risks on matrix real time**

- 🔴 **Use results to**
  - 🔷 **Validate draft SOO**
  - 🔷 **Draft evaluation factors**
  - 🔷 **Influence acquisition strategy**

20

Notional Definitions

Probability

- **High: very likely to near certain**

- **Moderate: likely**

- **Low: not very likely**

Impact

- **High: the event would cause serious to critical program failure, to the extent that requirements would not be met**

- **Moderate: the event would cause cost and/or schedule increases, but requirements would likely be achieved**

- **Low: the event would have little to no lasting effect on the program**

Summary

- **Both risk assessments and RFP development efforts are more effective and efficient if done collaboratively**

- **Documentation will be available immediately after risk assessment**
  - **Can be used to support development of risk management plan**

- **Results will be used to support Acquisition Strategy Panel**
  - **SAMP, RFP development**

- **Those who participate will be able to influence the acquisition strategy and the resultant RFP**
  - **Those who don't, won't**